

Table 27. Results of Long Term Filtered Nitrogen Inhibited BODs:  $k_1$  and  $BOD_u$ 

Station	Regression Equation	$R^2$	$k_1$ day <sup>-1</sup>	$Y_0$ mg/L	$Y_5$ mg/L	% BOD Remaining	$BOD_5$ mg/L	$BOD_u$ mg/L
August 10, 2001								
BAC02	$Y = 0.338e^{-0.0689X}$	0.934	0.0689	0.338	0.239	70.7	1.30	4.44
BAC06	$Y = 0.708e^{-0.0925X}$	0.926	0.0925	0.708	0.446	63.0	2.30	6.22
BAC12	$Y = 0.381e^{-0.0642X}$	0.933	0.0642	0.381	0.276	72.4	1.75	6.35
BAC15	$Y = 0.414e^{-0.0744X}$	0.927	0.0744	0.414	0.285	68.8	1.65	5.30
BAC17	$Y = 0.509e^{-0.0814X}$	0.938	0.0814	0.509	0.339	66.6	2.05	6.14
BAC21	$Y = 0.301e^{-0.0484X}$	0.939	0.0484	0.301	0.236	78.4	1.50	6.95
Survey Average			0.0716					5.90
May 30, 2002								
BAC02	$Y = 0.456e^{-0.0856X}$	0.935	0.0856	0.456	0.297	65.2	2.25	6.46
BAC06	$Y = 0.642e^{-0.0985X}$	0.936	0.0985	0.642	0.392	61.1	2.20	5.66
BAC12	$Y = 0.533e^{-0.0885X}$	0.943	0.0885	0.533	0.342	64.2	2.50	6.99
BAC15	$Y = 0.519e^{-0.0781X}$	0.924	0.0781	0.519	0.351	67.7	2.45	7.58
BAC17	$Y = 0.430e^{-0.0638X}$	0.945	0.0638	0.43	0.313	72.7	2.15	7.87
BAC21	$Y = 0.404e^{-0.0726X}$	0.927	0.0726	0.404	0.281	69.6	1.70	5.58
Survey Average			0.0812					6.69
July 26, 2002								
BAC02	$Y = 0.522e^{-0.1215X}$	0.972	0.1215	0.522	0.284	54.5	2.20	4.83
BAC06	$Y = 0.744e^{-0.0963X}$	0.945	0.0963	0.744	0.460	61.8	2.45	6.41
BAC12	$Y = 0.521e^{-0.0986X}$	0.959	0.0986	0.521	0.318	61.1	2.20	5.65
BAC15	$Y = 0.453e^{-0.0878X}$	0.960	0.0878	0.453	0.292	64.5	2.20	6.19
BAC17	$Y = 0.565e^{-0.1032X}$	0.935	0.1032	0.565	0.337	59.7	2.07	5.14
BAC21	$Y = 0.472e^{-0.1021X}$	0.915	0.1021	0.472	0.283	60.0	2.00	5.00
Survey Average			0.1016					5.54
Overall average of all stations during all studies								
$0.0848$								6.04

$Y = BOD_5$  Difference (mg/L);  $X = \text{Time (days)}$ ;  $k_1$  in day<sup>-1</sup> base e at 20°C